

Element Performance Inspection (EPI) Data Collection Tool
1.2.5 Mechanical Reliability Reports (MRR) (AW)

ELEMENT SUMMARY INFORMATION

Purpose of This Element (Certificate Holder's responsibility):

- To ensure that the occurrence or detection of each failure, malfunction or defect is reported in accordance with the requirements of 14 CFR Section 121.703 and the Certificate Holder's manual.

Objective (FAA oversight responsibility):

- To determine if the Certificate Holder follows its procedures, controls, process measurements and interfaces for the Mechanical Reliability Reports process.
- To determine if there were any changes in the personnel identified by the Certificate Holder as having responsibility and/or authority for the Mechanical Reliability Reports process.

Specific Instructions:

- To accomplish this EPI, the inspector must review the Certificate Holder's Mechanical Reliability Reports policies and procedures. During routine surveillance, the inspector should be cognizant of occurrences that would warrant filing of an MRR. This task requires coordination between geographic inspector and the responsible CMT member that oversees the Certificate Holder's MRR process.

Related EPIs:

- 1.1.1 Aircraft Airworthiness (AW)
- 1.1.2 Appropriate Operational Equipment (AW)
- 1.1.3 Special Flight Permits (AW)
- 1.2.1 Airworthiness Release / Logbook Entry (AW)
- 1.2.2 Major Repairs and Alterations Records (AW)
- 1.2.3 Maintenance Log / Recording Requirements (AW)
- 1.2.4 MIS Reports (AW)
- 1.3.1 Maintenance Program (AW)
- 1.3.2 Inspection Program (AW)
- 1.3.3 Maintenance Facility / Main Maintenance Base (AW)
- 5.1.1 Line Stations (AW)

SUPPLEMENTAL INFORMATION

Specific Regulatory Requirements (SRRs):

- SRRs:
 - 121.135(a)(1)
 - 121.135(b)(1)
 - 121.135(b)(2)
 - 121.135(b)(3)
 - 121.703(a)
 - 121.703(a)(1)
 - 121.703(a)(10)
 - 121.703(a)(11)
 - 121.703(a)(12)
 - 121.703(a)(13)
 - 121.703(a)(14)
 - 121.703(a)(15)
 - 121.703(a)(17)
 - 121.703(a)(2)
 - 121.703(a)(3)
 - 121.703(a)(4)
 - 121.703(a)(5)
 - 121.703(a)(6)
 - 121.703(a)(7)
 - 121.703(a)(8)
 - 121.703(a)(9)
 - 121.703(b)
 - 121.703(c)
 - 121.703(d)
 - 121.703(e)
 - 121.703(e)(1)
 - 121.703(e)(10)
 - 121.703(e)(2)
 - 121.703(e)(3)
 - 121.703(e)(4)
 - 121.703(e)(5)
 - 121.703(e)(6)
 - 121.703(e)(7)
 - 121.703(e)(8)
 - 121.703(e)(9)
 - 121.703(f)
 - 121.703(g)
 - 121.703(h)

Related CFRs & FAA Policy/Guidance:

- Related CFRs:
 - Intentionally left blank
- FAA Policy/Guidance:
 - Intentionally Left Blank.

EPI SECTION 1 – PERFORMANCE OBSERVABLES

Objective: (FAA oversight responsibility): To determine if the certificate holder follows its procedures, controls, process measurements, and interfaces for the Outsource Organization.

Tasks

To meet this objective, the inspector must accomplish the following tasks:

1. Review the information listed in the Supplemental Information section of this data collection tool.
2. Review the policies, procedures, instructions and information for the Mechanical Reliability Reports process contained in the Certificate Holder's manual.
3. Review the associated SAI for this element with emphasis on the controls, process measurements and interface attribute sections.
4. Observe the Mechanical Reliability Reports process to gain an understanding of the procedures, instructions and information contained in the Certificate Holder's manual.
5. Discuss the Mechanical Reliability Reports process with the personnel (other than management) who perform the duties and responsibilities required by the process.

Questions

To meet this objective, the inspector must answer the following questions:

1. Were the following Performance Measures met:

1.1 Did the Certificate Holder submit Mechanical Reliability Reports (MRR) within the time frames provided in its manual and 14 CFR Section 121.703?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
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1.2 Did the Certificate Holder report the occurrences as specified by its manual and 14 CFR Section 121.703?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
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Related Performance JTI's:

1. Check at the FAA Location then at the Records Repository that the Certificate Holder reported fires during flight and whether the related fire-warning system functioned properly.
Sources: 121.703(a)(1); 121.135(a)(1)
2. Check at the FAA Location then at the Records Repository that the Certificate Holder reported a failure, malfunction, or defect concerning propeller feathering system or the ability of the system to control overspeed during flight.
Sources: 121.703(a)(10); 121.135(a)(1)
3. Check at the FAA Location then at the Records Repository that the Certificate Holder reported a fuel or fuel-dumping system that affected fuel flow or caused hazardous leakage during flight.
Sources: 121.703(a)(11); 121.135(a)(1)
4. Check at the FAA Location then at the Records Repository that the Certificate Holder reported an unwanted landing gear extension or retraction, or an unwanted opening or closing of landing gear doors during flight.
Sources: 121.703(a)(12); 121.135(a)(1)
5. Check at the FAA Location then at the Records Repository that the Certificate Holder reported brake system components that resulted in loss of brake actuating force when the aircraft was in motion on the ground.
Sources: 121.703(a)(13); 121.135(a)(1)

6.

- Check at the FAA Location then at the Records Repository that the Certificate Holder reported aircraft structure damage that required major repair.
Sources: 121.703(a)(14); 121.135(a)(1)
7. Check at the FAA Location then at the Records Repository that the Certificate Holder reported cracks, permanent deformation, or corrosion of aircraft structures in accordance with the Certificate Holder's design.
Sources: 121.703(a)(15); 121.135(a)(1)
 8. Check at the FAA Location then at the Records Repository that the Certificate Holder reported failure, malfunction, or defect concerning aircraft components or systems that resulted in taking emergency actions during flight (except actions to shut down an engine).
Sources: 121.703(a)(16); 121.135(a)(1)
 9. Check at the FAA Location then at the Records Repository that the Certificate Holder reported emergency evacuation systems or components that were found defective, or that failed to perform the intended functions during: -- an actual emergency, -- during training, -- testing, -- maintenance, -- demonstrations, or -- inadvertent deployments.
Sources: 121.703(a)(17); 121.135(a)(1)
 10. Check at the FAA Location then at the Records Repository that the Certificate Holder reported aircraft wire-related mechanical reliability reports (MRR) in accordance with the Certificate Holder's design.
Sources: 8010.41 8 February 2002 121.135(a)(1)
 11. Check at the FAA Location then at the Records Repository that the Certificate Holder reported any other failure, malfunction, or defect in an aircraft that occurred or was detected at any time it had endangered or may have endangered the safe operation of an aircraft in accordance with the Certificate Holder's design.
Sources: 121.703(c); 121.135(a)(1)
 12. Check at the FAA Location then at the Records Repository that the Certificate Holder reported fires during flight not protected by related fire-warning system.
Sources: 121.703(a)(2); 121.135(a)(1)
 13. Check at the FAA Location then at the Records Repository that the Certificate Holder reported false fire warning during flight.
Sources: 121.703(a)(3); 121.135(a)(1)
 14. Check at the FAA Location then at the Records Repository that the Certificate Holder reported an exhaust system that caused damage during flight to: -- the engine, -- adjacent structure, -- equipment, or components.
Sources: 121.703(a)(4); 121.135(a)(1)
 15. Check at the FAA Location then at the Records Repository that the Certificate Holder reported aircraft components that caused the accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight.
Sources: 121.703(a)(5); 121.135(a)(1)
 16. Check at the FAA Location then at the Records Repository that the Certificate Holder reported engine shutdowns during flight because of flameout.

<p><i>Sources:</i> 121.703(a)(6); 121.135(a)(1)</p> <p>17. Check at the FAA Location then at the Records Repository that the Certificate Holder reported engine shutdown during flight when external damage to the engine or airplane structure occurred. <i>Sources:</i> 121.703(a)(7); 121.135(a)(1)</p> <p>18. Check at the FAA Location then at the Records Repository that the Certificate Holder reported engine shutdowns during flight due to: --- foreign object ingestion or --- icing. <i>Sources:</i> 121.703(a)(8); 121.135(a)(1)</p> <p>19. Check at the FAA Location then at the Records Repository that the Certificate Holder reported engine shutdowns during flight of more than one engine. <i>Sources:</i> 121.703(a)(9); 121.135(a)(1)</p>	
<p>1.3 Did the Certificate Holder's Mechanical Reliability Reports (MRR) include the detailed information as specified in 14 CFR Section 121.703? <i>Related Performance JTI's:</i></p> <p>1. Check at the FAA Location then at the Records Repository that the Certificate Holder reported that additional information, including information from the manufacturer or other agency, was expeditiously submitted as a supplement to the first report in accordance with the Certificate Holder's design. <i>Sources:</i> 121.703(h); 121.135(a)(1)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
<p>2 Were the Certificate Holder's policies, procedures, instructions and information, contained in its manual, for the Mechanical Reliability Reports process followed?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
<p>3 Were the Mechanical Reliability Reports process controls followed?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
<p>4 Did the records for the Mechanical Reliability Reports process comply with the instructions provided in the Certificate Holder's manual?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
<p>5 Were the process measurements for the Mechanical Reliability Reports process effective in identifying problems or potential problems and providing corrective action for them?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
<p>6 Did personnel properly handle the associated interfaces by complying with other written policies, procedures, instructions and information that are related to this element?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

EPI SECTION 1 – PERFORMANCE OBSERVABLES –Drop Down Menu	
1. Personnel.	
2. Tools and Equipment.	
3. Technical Data.	
4. Procedures, policies or instructions or information.	
5. Materials.	
6. Facilities.	
7. Controls.	
8. Process Measures.	
9. Interfaces.	
10. Desired Outcome.	
11. Other.	

EPI SECTION 2 – MANAGEMENT RESPONSIBILITY & AUTHORITY OBSERVABLES

Objective: To determine if the person identified by the certificate holder as having responsibility and/or authority for the Outsource Organization process is qualified, knowledgeable, and recognizes that responsibility and/or authority. (The person with the authority may or may not be the person with the responsibility.)

Tasks

To meet this objective, the inspector must accomplish the following tasks:

1 Identify the person who has overall responsibility for the Mechanical Reliability Reports process.

2 Identify the person that has overall authority for the Mechanical Reliability Reports.

NOTE: If no personnel or major program changes (as defined by the Principal Inspector) affecting the responsibility or authority attributes for this element have occurred since the last SAI and/or EPI was accomplished, then do not perform tasks 3 – 6. Answer questions 2.1 & 2.2, and provide the name/title.

3 Review the duties and responsibilities for the person(s) who manage the Mechanical Reliability Reports process documented in the Certificate Holder's manual.

4 Review the appropriate organizational chart.

5 Discuss the Mechanical Reliability Reports process with the management personnel identified in Tasks 1 and 2.

6 Evaluate the qualifications and work experience of the management personnel identified in Tasks 1 and 2.

Questions

To meet this objective, the inspector must answer the following questions:

2. Are the following aspects of the Management Responsibility and Authority Attributes addressed for the Mechanical Reliability Reports process:

2.1 Is there a clearly identified person who is responsible for the quality of the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain Name/Title: <input type="text"/>
2.2 Is there a clearly identified person who has authority to establish and modify the Certificate Holder's policies, procedures, instructions and information for the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain Name/Title: <input type="text"/>
2.3 Does the responsible person know that he/she has responsibility for the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
2.4 Does the person with authority know that he/she has authority for the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
2.5 Does the person with responsibility for the Mechanical Reliability Reports process meet the qualification standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable

2.6 Does the person with authority to establish and modify the Mechanical Reliability Reports process meet the qualification standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
2.7 Does the person with responsibility understand the controls, process measurements, and interfaces associated with the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
2.8 Does the person with authority understand the controls, process measurements, and interfaces associated with the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
2.9 Does the responsible person know who has authority to establish and modify the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
2.10 Does the individual with authority know who has the responsibility for the Mechanical Reliability Reports process?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable

EPI SECTION 2 – MANAGEMENT RESPONSIBILITY & AUTHORITY OBSERVABLES –Drop Down Menu	
1. Assignment of responsibility.	
2. Assignment of authority.	
3. Does not understand procedures, policies or instructions and information.	
4. Does not understand controls.	
5. Does not understand process measurements.	
6. Does not understand interfaces.	
7. Span of control.	
8. Position vacant.	
9. Other.	